

Appl. No. 10/643,169
Examiner: Le, Thao P, Art Unit 2818
In response to the Office Action dated March 17, 2004

Date: May 28, 2004
Attorney Dock t No. 10112751

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph at page 8, line 12 with the following rewritten paragraph.

In FIG. 3B, before removing the silicon nitride layer 46b from the upper portion of the deep trench DT, an ion implantation process 54 is performed with the silicon nitride layer 46 as a screen layer to form an ion ~~impenation~~ implantation area 56 in the silicon substrate 40 at the top portion of the deep trench DT. Preferably, the position and vertical length l of the ion implantation area 56 substantially correspond to those of a buried strap outdiffusion region which will be formed in subsequent processes. Preferably, the ion implantation process 54 uses a tilt-angle implantation with N2 as the ion source, and the vertical length l of the ion ~~impenation~~ implantation area 56 is approximately 800~1500Å.